



## ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

### AIR QUALITY CLASS I PERMIT

**COMPANY:** Yuma Cogeneration Associates  
**FACILITY:** Electric Generating Plant  
**PERMIT #:** 31433  
**DATE ISSUED:**  
**EXPIRY DATE:**

---

#### SUMMARY

This renewal operating permit is issued to Yuma Cogeneration Associates (YCA) for the operation of a 55 MW (nominal) combined cycle gas turbine cogeneration facility in Yuma, AZ. The facility is located at 280 North 27<sup>th</sup> Drive, Yuma. This is a renewal of Permit #1000103.

YCA operates a General Electric Frame 6 turbine, fired by natural gas to generate electricity for sale. The turbine operates 24 hours a day, 7 days a week. A #2 fuel oil system is available to fuel the turbine in the unlikely event of a curtailment of the natural gas supply. A Heat Recovery Steam Generator (HRSG) uses waste heat from the gas turbine exhaust, to generate high, intermediate, and low pressure steam. A majority of the steam produced in the HRSG is utilized in a turbine/generator set that generates additional electricity. The remaining steam supply provides steam injection for the gas turbine as well as process and chilling steam for the neighboring industrial facility. Emissions of nitrogen oxides from the gas turbine are reduced by injecting intermediate pressure steam produced in the HRSG. Gas fired duct burners are operated when additional steam is required from the HRSG. One 20 million Btu/hour gas fired standby boiler is used to generate intermediate pressure steam for the industrial customer in case the gas turbine is shut down. A cooling tower is used to complete the steam generator/condenser closed cycle by rejecting waste heat from the steam condenser to the atmosphere.

YCA is a "major source". The potential emission rates of the following pollutants are greater than 100 tons per year: (i) nitrogen oxides, (ii) carbon monoxide, and (iii) sulfur dioxide. This permit is issued in accordance with Title 49, Chapter 3 of the Arizona Revised Statutes. All definitions, terms, and conditions used in this permit conform to those in the Arizona Administrative Code R18-2-101 et. seq. (A.A.C.) and Title 40 of the Code of Federal Regulations (CFR), except as otherwise defined in this permit. All terms and conditions in this permit are enforceable by the Administrator of the U.S. Environmental Protection Agency.

This page left blank intentionally.

## TABLE OF CONTENTS

<b>ATTACHMENT “A”: GENERAL PROVISIONS.....</b>	<b>3</b>
<b>I. PERMIT EXPIRATION AND RENEWAL.....</b>	<b>3</b>
<b>II. COMPLIANCE WITH PERMIT CONDITIONS.....</b>	<b>3</b>
<b>III. PERMIT REVISION, REOPENING, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE .....</b>	<b>3</b>
<b>IV. POSTING OF PERMIT .....</b>	<b>3</b>
<b>V. FEE PAYMENT .....</b>	<b>3</b>
<b>VI. ANNUAL EMISSION INVENTORY QUESTIONNAIRE .....</b>	<b>3</b>
<b>VII. COMPLIANCE CERTIFICATION .....</b>	<b>3</b>
<b>VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS.....</b>	<b>3</b>
<b>IX. INSPECTION AND ENTRY .....</b>	<b>3</b>
<b>X. PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD .....</b>	<b>3</b>
<b>XI. ACCIDENTAL RELEASE PROGRAM.....</b>	<b>7</b>
<b>XII. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING .....</b>	<b>3</b>
<b>XIII. RECORD KEEPING REQUIREMENTS.....</b>	<b>3</b>
<b>XIV. REPORTING REQUIREMENTS .....</b>	<b>3</b>
<b>XV. DUTY TO PROVIDE INFORMATION .....</b>	<b>3</b>
<b>XVI. PERMIT AMENDMENT OR REVISION.....</b>	<b>13</b>
<b>XVII. FACILITY CHANGE WITHOUT A PERMIT REVISION .....</b>	<b>3</b>
<b>XVIII. TESTING REQUIREMENTS.....</b>	<b>3</b>
<b>XIX. PROPERTY RIGHTS .....</b>	<b>3</b>
<b>XX. SEVERABILITY CLAUSE .....</b>	<b>3</b>
<b>XXI. PERMIT SHIELD .....</b>	<b>3</b>
<b>ATTACHMENT “B”: SPECIFIC CONDITIONS .....</b>	<b>19</b>
<b>I. FACILITY WIDE REQUIREMENTS.....</b>	<b>19</b>
<b>II. GE FRAME 6 TURBINE AND DUCT BURNER .....</b>	<b>19</b>
<b>III. AUXILIARY BOILER .....</b>	<b>24</b>
<b>IV. COOLING TOWER.....</b>	<b>25</b>
<b>V. NON-POINT SOURCES .....</b>	<b>26</b>
<b>VI. MOBILE SOURCES.....</b>	<b>28</b>
<b>VI. OTHER PERIODIC ACTIVITIES .....</b>	<b>29</b>
<b>ATTACHMENT “C”: EQUIPMENT LIST.....</b>	<b>33</b>

This page left blank intentionally

## **ATTACHMENT "A": GENERAL PROVISIONS**

### **Air Quality Control Permit No. 31433 for Yuma Cogeneration Associates**

#### **I. PERMIT EXPIRATION AND RENEWAL** [ARS § 49-426.F, A.A.C. R18-2-304.C.2, and -306.A.1]

- A.** This permit is valid for a period of five years from the date of issuance.
- B.** The Permittee shall submit an application for renewal of this permit at least 6 months, but not more than 18 months, prior to the date of permit expiration.

#### **II. COMPLIANCE WITH PERMIT CONDITIONS** [A.A.C. R18-2-306.A.8.a and b]

- A.** The Permittee shall comply with all conditions of this permit including all applicable requirements of the Arizona air quality statutes and air quality rules. Any permit noncompliance constitutes a violation of the Arizona Revised Statutes and is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application. In addition, noncompliance with any federally enforceable requirement constitutes a violation of the Clean Air Act.
- B.** It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

#### **III. PERMIT REVISION, REOPENING, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE** [A.A.C. R18-2-306.A.8.c, -321.A.1.c-d, and -321.A.2]

- A.** The permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit revision, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- B.** The permit shall be reopened and revised under any of the following circumstances
  - 1. The Director or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
  - 2. The Director or the Administrator determines that the permit needs to be revised or revoked to assure compliance with the applicable requirements.
- C.** Proceedings to reopen and reissue a permit, including appeal of any final action relating to a permit reopening, shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Such reopenings shall be made as expeditiously as practicable. Permit reopenings shall not result in a resetting of the five-year permit term.

#### **IV. POSTING OF PERMIT**

[A.A.C. R18-2-315]

- A.** The Permittee shall post this permit or a certificate of permit issuance where the facility is located in such a manner as to be clearly visible and accessible. All equipment covered by this permit shall be clearly marked with one of the following:
  - 1. Current permit number; or
  - 2. Serial number or other equipment ID number listed in the permit to identify that piece of equipment.
- B.** A copy of the complete permit shall be kept on site.

#### **V. FEE PAYMENT**

[A.A.C. R18-2-306.A.9 and -326]

The Permittee shall pay fees to the Director pursuant to ARS § 49-426(E) and A.A.C. R18-2-326.

#### **VI. ANNUAL EMISSION INVENTORY QUESTIONNAIRE**

[A.A.C. R18-2-327.A and B]

- A.** The Permittee shall complete and submit to the Director an annual emissions inventory questionnaire. The questionnaire is due by March 31st or ninety days after the Director makes the inventory form available each year, whichever occurs later, and shall include emission information for the previous calendar year.
- B.** The questionnaire shall be on a form provided by the Director and shall include the information required by A.A.C. R18-2-327.

#### **VII. COMPLIANCE CERTIFICATION**

[A.A.C. R18-2-309.2.a, -309.2.c-d, and -309.5.d]

- A.** The Permittee shall submit a compliance certification to the Director semiannually which describes the compliance status of the source with respect to each permit condition. The first certification shall be submitted no later than May 15<sup>th</sup>, and shall report the compliance status of the source during the period between October 1<sup>st</sup> of the previous year and March 31<sup>st</sup> of the current year. The second certification shall be submitted no later than November 15<sup>th</sup>, and shall report the compliance status of the source during the period between April 1<sup>st</sup> and September 30<sup>th</sup> of the current year.

The compliance certification shall include the following:

- 1. Identification of each term or condition of the permit that is the basis of the certification;
- 2. Identification of the methods or other means used by the Permittee for determining the compliance status with each term and condition during the certification period;
- 3. The status of compliance with the terms and conditions of this permit for the period covered by the certification, based on the methods or means designated in Condition VII.A.2 above. The certifications shall identify each deviation and take it into account for consideration in the compliance certification;

4. All instances of deviations from permit requirements reported pursuant to Condition XII.B of this Attachment; and
  5. Other facts the Director may require determining the compliance status of the source.
- B.** A progress report on all outstanding compliance schedules shall be submitted every six months beginning with six months after permit issuance.

**VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS** [A.A.C. R18-2-304.H]

Any document required to be submitted by this permit, including reports, shall contain a certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

**IX. INSPECTION AND ENTRY** [A.A.C. R18-2-309.4]

Upon presentation of credentials and other documents as may be required by law, Permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), to perform the following;

- A.** Enter upon the Permittee's premises where a source is located, emissions-related activity is conducted, or where records are required to be kept under the conditions of the permit;
- B.** Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
- C.** Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
- D.** Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements; and
- E.** Record any inspection by use of written, electronic, magnetic and photographic media.

**X. PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD** [A.A.C. R18-2-304.C]

If this source becomes subject to a standard promulgated by the Administrator pursuant to Section 112(d) of the Act, then the Permittee shall, within twelve months of the date on which the standard is promulgated, submit an application for a permit revision demonstrating how the source will comply with the standard.

**XI. ACCIDENTAL RELEASE PROGRAM** [40 CFR Part 68]

If this source becomes subject to the provisions of 40 CFR Part 68, then the Permittee shall comply with these provisions according to the time line specified in 40 CFR Part 68.

## **XII. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING**

### **A. Excess Emissions Reporting**

[A.A.C. R18-2-310.01.A and B]

#### **1. Excess emissions shall be reported as follows:**

a. The Permittee shall report to the Director any emissions in excess of the limits established by this permit. Such report shall be in two parts as specified below:

- i. Notification by telephone or facsimile within 24 hours of the time when the Permittee first learned of the occurrence of excess emissions including all available information from Condition XII.A.1.b below.
- ii. Detailed written notification by submission of an excess emissions report within 72 hours of the notification pursuant to Condition XII.A.1.a.i above.

b. The report shall contain the following information:

- i. Identity of each stack or other emission point where the excess emissions occurred;
- ii. Magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions;
- iii. Date, time and duration, or expected duration, of the excess emissions;
- iv. Identity of the equipment from which the excess emissions emanated;
- v. Nature and cause of such emissions;
- vi. If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions; and
- vii. Steps taken to limit the excess emissions. If the excess emissions resulted from start-up or malfunction, the report shall contain a list of the steps taken to comply with the permit procedures.

2. In the case of continuous or recurring excess emissions, the notification requirements of this section shall be satisfied if the source provides the required notification after excess emissions are first detected and includes in such notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period, or changes in the nature of



the emissions as originally reported, shall require additional notification pursuant to Condition XII.A.1 above. [A.A.C. R18-2-310.01.C]

**B. Permit Deviations Reporting**

[A.A.C. R18-2-306.A.5.b]

The Permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. Prompt reporting shall mean that the report was submitted to the Director by certified mail, facsimile, or hand delivery within two working days of the time the deviation occurred.

**C. Emergency Provision**

[A.A.C. R18-2-306.E]

1. An “emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, that require immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if Condition XII.C.3 is met.
3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - a. An emergency occurred and that the Permittee can identify the cause(s) of the emergency;
  - b. The permitted facility was being properly operated at the time;
  - c. During the period of the emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
  - d. The Permittee submitted notice of the emergency to the Director by certified mail, facsimile, or hand delivery within two working days of the time when emission limitations were exceeded due to the emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

**D. Compliance Schedule**

[ARS § 49-426.I.5]

For any excess emission or permit deviation that cannot be corrected within 72 hours, the Permittee is required to submit a compliance schedule to the Director within 21 days of such occurrence. The compliance schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with the permit terms or conditions that have been violated.

**E. Affirmative Defenses for Excess Emissions Due to Malfunctions, Startup, and Shutdown**  
[A.A.C. R18-2-310]

**1. Applicability**

This rule establishes affirmative defenses for certain emissions in excess of an emission standard or limitation and applies to all emission standards or limitations except for standards or limitations:

- a. Promulgated pursuant to Sections 111 or 112 of the Act;
- b. Promulgated pursuant to Titles IV or VI of the Clean Air Act;
- c. Contained in any Prevention of Significant Deterioration (PSD) or New Source Review (NSR) permit issued by the U.S. EPA;
- d. Contained in A.A.C. R18-2-715.F; or
- e. Included in a permit to meet the requirements of A.A.C. R18-2-406.A.5.

**2. Affirmative Defense for Malfunctions**

Emissions in excess of an applicable emission limitation due to malfunction shall constitute a violation. When emissions in excess of an applicable emission limitation are due to a malfunction, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:

- a. The excess emissions resulted from a sudden and unavoidable breakdown of process equipment or air pollution control equipment beyond the reasonable control of the Permittee;
- b. The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
- c. If repairs were required, the repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded. Off-shift labor and overtime were utilized where practicable to ensure that the repairs were made as expeditiously as possible. If off-shift labor and

overtime were not utilized, the Permittee satisfactorily demonstrated that the measures were impracticable;

- d. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;
- e. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;
- f. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;
- g. During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;
- h. The excess emissions did not stem from any activity or event that could have been foreseen and avoided, or planned, and could not have been avoided by better operations and maintenance practices;
- i. All emissions monitoring systems were kept in operation if at all practicable; and
- j. The Permittee's actions in response to the excess emissions were documented by contemporaneous records

3. Affirmative Defense for Startup and Shutdown

- a. Except as provided in Condition XII.E.3.b below, and unless otherwise provided for in the applicable requirement, emissions in excess of an applicable emission limitation due to startup and shutdown shall constitute a violation. When emissions in excess of an applicable emission limitation are due to startup and shutdown, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:
  - i. The excess emissions could not have been prevented through careful and prudent planning and design;
  - ii. If the excess emissions were the result of a bypass of control equipment, the bypass was unavoidable to prevent loss of life, personal injury, or severe damage to air pollution control equipment, production equipment, or other property;
  - iii. The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;

- iv. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;
  - v. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;
  - vi. During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;
  - vii. All emissions monitoring systems were kept in operation if at all practicable; and
  - viii. Contemporaneous records documented the Permittee's actions in response to the excess emissions.
- b. If excess emissions occur due to a malfunction during routine startup and shutdown, then those instances shall be treated as other malfunctions subject to Condition XII.E.2 above.

4. Affirmative Defense for Malfunctions during Scheduled Maintenance

If excess emissions occur due to a malfunction during scheduled maintenance, then those instances will be treated as other malfunctions subject to Condition XII.E.2 above.

5. Demonstration of Reasonable and Practicable Measures

For an affirmative defense under Condition XII.E.2 or XII.E.3 above, the Permittee shall demonstrate, through submission of the data and information required by Condition XII.E and A.A.C. R18-2-310.01, that all reasonable and practicable measures within the Permittee's control were implemented to prevent the occurrence of the excess emissions.

### **XIII. RECORD KEEPING REQUIREMENTS**

[A.A.C. R18-2-306.A.4]

- A.** The Permittee shall keep records of all required monitoring information including, but not limited to, the following:
- 1. The date, place as defined in the permit, and time of sampling or measurements;
  - 2. The date(s) analyses were performed;
  - 3. The name of the company or entity that performed the analyses;
  - 4. A description of the analytical techniques or methods used;
  - 5. The results of such analyses; and

6. The operating conditions as existing at the time of sampling or measurement.
- B.** The Permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings or other data recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
- C.** All required records shall be maintained either in an unchangeable electronic format or in a handwritten logbook utilizing indelible ink.

#### **XIV. REPORTING REQUIREMENTS**

[A.A.C. R18-2-306.A.5.a]

The Permittee shall submit the following reports:

- A.** Compliance certifications in accordance with Section VII of Attachment "A".
- B.** Excess emission; permit deviation, and emergency reports in accordance with Section XII.
- C.** Performance test results in accordance with Condition XVIII.G.
- D.** Other reports required by any condition of Attachment "B".

#### **XV. DUTY TO PROVIDE INFORMATION**

- A.** The Permittee shall furnish to the Director, within a reasonable time, any information that the Director may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Director copies of records required to be kept by the permit. For information claimed to be confidential, the Permittee shall furnish an additional copy of such records directly to the Administrator along with a claim of confidentiality.  
[A.A.C. R18-2-306.A.8.e]
- B.** If the Permittee has failed to submit any relevant facts or has submitted incorrect information in the permit application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.  
[A.A.C. R18-2-304.G]

#### **XVI. PERMIT AMENDMENT OR REVISION**

[A.A.C. R18-2-317.01, -318, -319, and -320]

The Permittee shall apply for a permit amendment or revision for changes to the facility which do not qualify for a facility change without revision under Section XVII, as follows:

- A.** Facility Changes that Require a Permit Revision - Class II (A.A.C. R18-2-317.01);
- B.** Administrative Permit Amendment (A.A.C. R18-2-318);
- C.** Minor Permit Revision (A.A.C. R18-2-319); and

**D. Significant Permit Revision**

(A.A.C. R18-2-320)

The applicability and requirements for such action are defined in the above referenced regulations.

**XVII. FACILITY CHANGE WITHOUT A PERMIT REVISION** [A.A.C. R18-2-306.A.4 and -317.02]

- A.** Except for a physical change or change in the method of operation at a Class II source requiring a permit revision under A.A.C. R18-2-317.01, or a change subject to logging or notice requirements in Conditions XVII.B and XVII.C below, a change at a Class II source shall not be subject to revision, notice, or logging requirements under this Section.
- B.** Except as otherwise provided in the conditions applicable to an emissions cap created under A.A.C. R18-2-306.02, the following changes may be made if the source keeps on site records of the changes according to Appendix 3 of the Arizona Administrative Code:
1. Implementing an alternative operating scenario, including raw materials changes;
  2. Changing process equipment, operating procedures, or making any other physical change if the permit requires the change to be logged;
  3. Engaging in any new insignificant activity listed in A.A.C. R18-2-101.57.a through A.A.C. R18-2-101.57.i but not listed in the permit;
  4. Replacing an item of air pollution control equipment listed in the permit with an identical (same model, different serial number) item. The Director may require verification of efficiency of the new equipment by performance tests; and
  5. A change that results in a decrease in actual emissions if the source wants to claim credit for the decrease in determining whether the source has a net emissions increase for any purpose. The logged information shall include a description of the change that will produce the decrease in actual emissions. A decrease that has not been logged is creditable only if the decrease is quantifiable, enforceable, and otherwise qualifies as a creditable decrease.
- C.** Except as provided in the conditions applicable to an emissions cap created under A.A.C. R18-2-306.02, the following changes may be made if the source provides written notice to the Department in advance of the change as provided below:
1. Replacing an item of air pollution control equipment listed in the permit with one that is not identical but that is substantially similar and has the same or better pollutant removal efficiency: 7 days. The Director may require verification of efficiency of the new equipment by performance tests;
  2. A physical change or change in the method of operation that increases actual emissions more than 10% of the major source threshold for any conventional pollutant but does not require a permit revision: 7 days;
  3. Replacing an item of air pollution control equipment listed in the permit with one that is not substantially similar but that has the same or better efficiency: 30 days.

The Director may require verification of efficiency of the new equipment by performance tests;

4. A change that would trigger an applicable requirement that already exists in the permit: 30 days unless otherwise required by the applicable requirement;
5. A change that amounts to reconstruction of the source or an affected facility: 7 days. For the purposes of this subsection, reconstruction of a source or an affected facility shall be presumed if the fixed capital cost of the new components exceeds 50% of the fixed capital cost of a comparable entirely new source or affected facility and the changes to the components have occurred over the 12 consecutive months beginning with commencement of construction; and
6. A change that will result in the emissions of a new regulated air pollutant above an applicable regulatory threshold but that does not trigger a new applicable requirement for that source category: 30 days. For purposes of this requirement, an applicable regulatory threshold for a conventional air pollutant shall be 10% of the applicable major source threshold for that pollutant.

**D.** For each change under Condition XVII.C above, the written notice shall be by certified mail or hand delivery and shall be received by the Director the minimum amount of time in advance of the change. Notifications of changes associated with emergency conditions, such as malfunctions necessitating the replacement of equipment, may be provided with less than required notice, but must be provided as far in advance of the change, or if advance notification is not practicable, as soon after the change as possible. The written notice shall include:

1. When the proposed change will occur;
2. A description of the change;
3. Any change in emissions of regulated air pollutants; and
4. Any permit term or condition that is no longer applicable as a result of the change.

**E.** A source may implement any change in Condition XVII.C above without the required notice by applying for a minor permit revision under A.A.C. R18-2-319 and complying with subsection A.A.C. R18-2-319.D.2 and A.A.C. R18-2-319.G.

**F** The permit shield described in A.A.C. R18-2-325 shall not apply to any change made under this Section, other than implementation of an alternate operating scenario under Condition XVII.B.1.

**G.** Notwithstanding any other part of this Section, the Director may require a permit to be revised for any change that, when considered together with any other changes submitted by the same source under this Section over the term of the permit, constitutes a change under subsection A.A.C. R18-2-317.01.A.

- H.** If a source change is described under both Conditions XVII.B and XVII.C above, the source shall comply with Condition XVII.C above. If a source change is described under both Condition XVII.C above and A.A.C. R18-2-317.01.B, the source shall comply with A.A.C. R18-2-317.01.B.
- I.** A copy of all logs required under Condition XVII.B shall be filed with the Director within 30 days after each anniversary of the permit issuance date. If no changes were made at the source requiring logging, a statement to that effect shall be filed instead.
- J.** Logging Requirements [A.A.C. R18-2-306.A.4]
1. Each log entry required by a change under Condition XVII.B shall include at least the following information:
    - a. A description of the change, including:
      - i. A description of any process change;
      - ii. A description of any equipment change, including both old and new equipment descriptions, model numbers, and serial numbers, or any other unique equipment ID number; and
      - iii. A description of any process material change.
    - b. The date and time that the change occurred.
    - c. The provision of A.A.C. R18-2-317.02.B that authorizes the change to be made with logging.
    - d. The date the entry was made and the first and last name of the person making the entry.
  2. Logs shall be kept for 5 years from the date created. Logging shall be performed in indelible ink in a bound log book with sequentially number pages, or in any other form, including electronic format, approved by the Director.

## **XVIII. TESTING REQUIREMENTS**

[A.A.C. R18-2-312]

- A.** The Permittee shall conduct performance tests as specified in the permit and at such other times as may be required by the Director.

**B. Operational Conditions during Testing**

Tests shall be conducted during operation at the maximum possible capacity of each unit under representative operational conditions unless other conditions are required by the applicable test method or in this permit. With prior written approval from the Director, testing may be performed at a lower rate. Operations during periods of start-up, shutdown, and malfunction (as defined in A.A.C. R18-2-101) shall not constitute representative operational conditions unless otherwise specified in the applicable standard.



- C.** Tests shall be conducted and data reduced in accordance with the test methods and procedures contained in the Arizona Testing Manual unless modified by the Director pursuant to A.A.C. R18-2-312.B.

**D. Test Plan**

At least 14 calendar days prior to performing a test, the Permittee shall submit a test plan to the Director in accordance with A.A.C. R18-2-312.B and the Arizona Testing Manual. This test plan must include the following:

1. Test duration;
2. Test location(s);
3. Test method(s); and
4. Source operation and other parameters that may affect test results.

**E. Stack Sampling Facilities**

The Permittee shall provide, or cause to be provided, performance testing facilities as follows:

1. Sampling ports adequate for test methods applicable to the facility;
2. Safe sampling platform(s);
3. Safe access to sampling platform(s); and
4. Utilities for sampling and testing equipment.

**F. Interpretation of Final Results**

Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of the results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs is required to be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control, compliance may, upon the Director's approval, be determined using the arithmetic mean of the results of the other two runs. If the Director or the Director's designee is present, tests may only be stopped with the Director's or such designee's approval. If the Director or the Director's designee is not present, tests may only be stopped for good cause. Good cause includes: forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control. Termination of any test without good cause after the first run is commenced shall constitute a failure of the test. Supporting documentation, which demonstrates good cause, must be submitted.

**G. Report of Final Test Results**

A written report of the results of all performance tests shall be submitted to the Director within 30 days after the test is performed. The report shall be submitted in accordance with the Arizona Testing Manual and A.A.C. R18-2-312.A.

**XIX. PROPERTY RIGHTS**

[A.A.C. R18-2-306.A.8.d]

This permit does not convey any property rights of any sort, or any exclusive privilege.

**XX. SEVERABILITY CLAUSE**

[A.A.C. R18-2-306.A.7]

The provisions of this permit are severable. In the event of a challenge to any portion of this permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force.

**XXI. PERMIT SHIELD**

[A.A.C. R18-2-325]

Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements identified in the portions of this permit subtitled "Permit Shield". The permit shield shall not apply to any minor revisions pursuant to Condition XVI.C and any facility changes without a permit revision pursuant to Section XVII.

## ATTACHMENT "B": SPECIFIC CONDITIONS

### Air Quality Control Permit No. 31433

for

Yuma Cogeneration Associates

#### I. FACILITY WIDE REQUIREMENTS

- A. The Permittee shall have on site or on call a person certified in EPA Reference Method 9. [A.A.C. R18-2-306.A.3.c]
- B. At the time the compliance certifications required by Section VII of Attachment "A" are submitted, the Permittee shall submit reports of all monitoring activities required by Attachment "B" performed during the six-month compliance term. [A.A.C. R18-2-306.A.5.a]
- C. The Permittee shall keep a log of all emission related maintenance activities performed at the facility. [A.A.C. R18-2-306.A.3.c]

#### II. GE FRAME 6 TURBINE AND DUCT BURNER

##### A. Fuel Limitation

###### 1. Fuel Type

###### a. GE Frame 6 Turbine

The Permittee shall burn only natural gas or No. 2 fuel oil in the GE Frame 6 Turbine. [A.A.C. R18-2-306.A.2]

###### b. Duct Burners

The Permittee shall burn only natural gas in the duct burners. [A.A.C. R18-2-306.A.2 and A.A.C. R18-2-306.01]

###### 2. Monitoring, Reporting and Record keeping Requirements [A.A.C. R18-2-306.A.3.c]

On a daily basis, the Permittee shall keep records of the type of fuel burned in the GE Frame 6 turbine.

##### B. Nitrogen Oxide (NO<sub>x</sub>)

###### 1. Emissions Limitations and Standards [A.A.C. R18-2-306.01] [Material permit conditions are indicated by underline and italics]

- a. *The Permittee shall not cause to be discharged into the atmosphere from the stack of the GE Frame 6 Turbine and duct burner any gases which contain nitrogen oxides in excess of 25 parts per million (ppm), at 15% oxygen. Emissions in excess of this limit during the periods of*

start-up, shutdown, and malfunction shall not be considered a violation. Excess emissions for NO<sub>x</sub> are defined as any consecutive 3-hour period during which the average hourly emissions of nitrogen oxides measured by the continuous monitoring system exceeds the maximum emission limit given above. This three-hour rolling average shall begin with the first complete hour of steam injection operation following startup.

- b. “Startup” is defined as the time period following the initiation of a gas turbine start until the steam injection system is placed in service immediately upon reaching 300 psia at 450°F.

[Operating permit #1000103, Attachment “B”, Condition I.A.1.b]

- c. The Permittee shall not emit more than 230 tons per year of nitrogen oxides, calculated as a 12-month rolling total, from the GE Frame 6 turbine and duct burner, as measured by the continuous emission monitors.

[A.A.C. R18-2-306.01]

- d. The Permittee shall not emit nitrogen oxides more than 0.20 lbs/MMBtu, maximum three hour average, from the duct burner.

[Arizona SIP R9-3-503.C.4.a]

2. Air Pollution Control Equipment

[40 CFR 60.11.d and R18-2-331.A.3.e]

[Material permit conditions are indicated by underline and italics]

At all times, including periods of startup, shutdown, and malfunction, the Permittee shall to the extent practicable, maintain and operate the steam injection system in a manner consistent with good air pollution control practice for minimizing emissions from the GE Frame 6 Turbine.

3. Monitoring, Reporting, and Record keeping

- a. Continuous Monitoring System for NO<sub>x</sub>, Fuel Use and Steam to Fuel Ratio

i. Recordkeeping Requirements

Permittee shall maintain a file of all measurements, including continuous monitoring system and monitoring device measurements; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices, recorded in a permanent form suitable for inspection. The file shall be retained for at least five years following the date of such measurements, maintenance, reports and records.

[40 CFR 60.7(f)]

- ii. Continuous Monitoring System for Fuel Use and Steam to Fuel Ratio [40 CFR 60.334(a)]

Permittee shall maintain, calibrate, and operate a continuous monitoring system to monitor and record the fuel consumption and ratio of steam to fuel being fired in the GE Frame 6 Turbine. The system shall be accurate within  $\pm 5\%$  of the measured value.

- iii. Continuous Monitoring System for Air Flow [A.A.C. R18-2-312.H.3]

The continuous monitoring system used to measure stack gas volumetric flow rates shall meet monitoring performance specifications of 40 CFR 60, Appendix B Specification 6.

- iv. Continuous Monitoring System for NO<sub>x</sub> Emissions [A.A.C. R18-2-312.H.3]

Permittee shall maintain, calibrate, and operate a continuous monitoring system to monitor and record the NO<sub>x</sub> emissions from the stack. The continuous monitoring system shall meet the specifications of 40 CFR 60 Appendix B Specification 2.

- b. On a monthly basis, the Permittee shall record twelve month rolling totals of the emissions of NO<sub>x</sub> from the gas turbine and duct burners. [A.A.C. R18-2-306.A.3.c]

- c. Permittee shall record and maintain records of the natural gas burned in the duct burners each day. This may be compiled by maintaining copies of monthly natural gas purchase bills.

- d. Reporting of Excess Emissions [40 CFR 60.7(c)]

The Permittee shall submit a written report of all excess emissions to the Department for every 3-month period ending March 31, June 30, September 30, and December 31. The reports shall be due within 30 days from the end of the reporting period. The report shall include the following:

- i. The magnitude of excess emissions of NO<sub>x</sub>, as defined in Attachment "B", Section II.B.1.a, in ppm, the date and time of commencement, and completion of each time period of excess emissions.
- ii. Any steam to fuel ratio measured over any one-hour period reported by the steam to fuel monitor, defined in Attachment "B" Section II.B.3.a.ii, which falls below the ratio determined to demonstrate compliance with 25 ppm, (15% oxygen, by volume,

dry basis), conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.

- iii. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the turbine. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted shall also be reported.
- iv. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
- v. When no excess emissions have occurred or the continuous monitoring system has not been inoperative; repaired; or adjusted, such information shall be stated in the report.

e. Quality Assurance for CEMS [A.A.C. R18-2-331.A.3.c]

The Permittee shall conduct or cause to be conducted certification of continuous emissions monitors on the turbine at least once in each calendar year. The Permittee shall furnish the Department a written report of such tests. Certification tests shall be conducted for nitrogen oxides using methods described in 40 CFR 60 Appendix F.

- i. Quality Control Requirements;
- ii. Calibration Drift Assessment;
- iii. Data Accuracy Assessment;
- iv. Calculation for CEMS Data Accuracy;
- v. Reporting Requirements

4. Permit Shield [A.A.C. R18-2-325]

Compliance with this Condition II.B shall be deemed compliance with the following requirements as of the date of issuance of this permit: 40 CFR 60.92.a, 40 CFR 60.11.d, 40 CFR 60.7(f), 40 CFR 60.334(a), 40 CFR 60.7(c), 40 CFR 60.13(a), and Arizona SIP R9-3-503.C.4.a.

## C. Sulfur Dioxide

1. Emissions Limitations and Standards [40 CFR 60.333.b]  
[Operating permit #1000103, Attachment "B", Condition I.B.1]

The Permittee shall not burn in the GE Frame 6 Turbine natural gas which contains sulfur in excess of 0.8% by weight, or fuel oil, which contains sulfur in excess of 0.05% by weight.

2. Monitoring, Reporting, and Record keeping

- a. The Permittee shall monitor daily, the sulfur content and nitrogen content of the fuel fired in the turbine. This requirement may be complied with by maintaining a vendor-provided copy of that part of the FERC-approved Tariff agreement that limits transmission to pipeline quality natural gas of sulfur content less than 0.8% by weight. [40 CFR 60.334(b)]
- b. The Permittee shall notify the Director in writing within 30 days of any change to the vendor provided FERC-approved Tariff agreement relating to the fuel sulfur content and lower heating value limits that occur during the term of the permit. [A.A.C. R18-2-306.A.5]
- c. The Permittee shall keep on record a copy of the fuel oil purchase specification sheet. This specification sheet shall include the sulfur content (sulfur weight percentage) and the method used to determine the sulfur content of the fuel. [40 CFR 60.334(b)]

3. Permit Shield [A.A.C. R18-2-325]

Compliance with this Condition II.C shall be deemed compliance with Condition I.B.1 of Attachment B of Operating Permit #1000103, 40 CFR 60.333(b) and 40 CFR 60.334(b) as of the date of issuance of this permit.

**D. Carbon Monoxide**

1. Monitoring, Reporting & Recordkeeping Requirements [A.A.C. R18-2-306.A.3.c]

- a. The Permittee shall keep track of the total hours of operation of the GE Frame 6 turbine on daily basis.
- b. The Permittee shall keep track of monthly totals and rolling 12-month total hours of operation of GE Frame 6 Turbine.

2. Performance Testing [A.A.C. R18-2-312]

- a. The Permittee shall conduct a performance test for Carbon monoxide if the rolling twelve month total hours of operation exceed 4655 hours.
- b. The performance test shall be conducted within six months of triggering the need for the test.
- c. No more than one performance test shall be required in any calendar year.

**E. Particulate Matter**

1. Emission Limitations/Standards

The Permittee shall not cause, suffer, allow, or permit the emission of particulate matter, caused by combustion of fuel, from the duct burner in excess of the amounts calculated by the following equation:

$$E = 1.02 Q^{0.769}$$

where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour

Q = the heat input in million Btu per hour

[Arizona SIP R9-3-503.C.1.a.i]

2. Permit Shield

[A.A.C. R18-2-325]

Compliance with this Condition II.E shall be deemed compliance with Arizona SIP R9-3-503.C.1.a.i as of the date of issuance of this permit.

**III. AUXILIARY BOILER**

**A. Fuel Limitation**

[Operating permit #1000103, Attachment "B", Condition II.A.1]

1. Type of Fuel

The Permittee shall burn only natural gas in the auxiliary boiler.

2. Monitoring, Reporting and Recordkeeping

[40 CFR 60.48c(g)]

Permittee shall record and maintain records of the amount of natural gas burned each day. This may be complied with by maintaining copies of monthly natural gas purchase bills.

3. Permit Shield

[A.A.C. R18-2-325]

Compliance with this Condition III.A shall be deemed compliance with Operating permit #1000103, Attachment "B", Condition II.A.1 and 40 CFR 60.48.c.(g).



## **B. Nitrogen Oxide (NO<sub>x</sub>)**

### **1. Emissions Limitations and Standards**

The Permittee shall not emit nitrogen oxide more than 0.20 lbs/MMBtu, maximum three hour average, from the auxiliary boiler. [Arizona SIP R9-3-503.C.4.a]

### **2. Permit Shield** [A.A.C. R18-2-325]

Compliance with this Condition III.B shall be deemed compliance with Arizona SIP R9-3-503.C.4.a as of the date of issuance of this permit.

## **IV. COOLING TOWER**

### **A. Opacity**

#### **1. Emission Limitations/Standards** [A.A.C.R18-2-730.A.1]

- a. Permittee shall not emit or cause to be emitted into the atmosphere particulate matter in excess of the amount calculated by the following equation:

$$E = 55.0P^{0.11} - 40$$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour; and

P = the process weight rate in tons-mass per hour.

- b. The opacity of any plume or effluent from the storage tanks shall not be greater than 20 percent, measured in accordance with EPA Reference Method 9. [A.A.C. R 18-2-702.B.1]

- c. Where a stack, vent, or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the Permittee thereof to a degree that will adequately dilute, reduce, or eliminate the discharge of air pollution to adjoining property. [A.A.C.R18-2-730.G]

#### **2. Monitoring, Reporting, and Record keeping** [A.A.C. R18-2-306.A.3.c]

A certified EPA Reference Method 9 observer shall conduct a quarterly survey of visible emissions emanating from the tower. The Permittee shall keep records of the type of observation performed, emission unit, name of observer, date, time of

observation, location and the results of the observation. If the observation shows Method 9 opacity reading in excess of applicable standard, Permittee shall initiate appropriate corrective action to reduce the opacity below the applicable limit. The Permittee shall keep a record of the corrective action performed. These records shall be made available to the ADEQ inspector upon request. For all instances of an exceedance of the opacity standard, the Permittee shall submit excess emission reports in accordance with XII.A.1 of Attachment "A".

3. Permit Shield [A.A.C. R18-2-325]

Compliance with this Condition IV.A shall be deemed compliance with the following requirements as of the date of issuance of this permit: A.A.C. R18-2-702.B.1, A.A.C. R18-2-730.A.1, and A.A.C. R18-2-730.G.

## **B. Gaseous Emissions**

1. Emission Limitations/Standards [A.A.C. R18-2-730.D]

No person shall emit gaseous or odorous materials from equipment, operations or premises under his control in such quantities or concentrations as to cause air pollution.

2. Permit Shield [A.A.C. R18-2-325]

Compliance with this Condition IV.B shall be deemed compliance with A.A.C. R18-2-730.D as of the date of issuance of this permit.

## **V. NONPOINT SOURCES**

### **Particulate Matter**

#### **A. Emission Limits/Standards**

1. Open Areas, Roadways & Streets, Storage Piles, and Material Handling

The Permittee shall not cause, allow or permit visible emissions from open areas, roadways and streets, storage piles or material handling in excess of 40% opacity measured in accordance with the Arizona Testing Manual, Reference Method 9. Open fires permitted under A.A.C.R18-2-602 are exempt from this requirement.  
[A.A.C.R18-2-612]

2. Open Burning

Except as provided in A.A.C.R18-2-602.C (1), C (4), and except when permitted to do so by either ADEQ or the local officer delegated the authority for issuance of open burning permits, the permittee shall not conduct open burning  
[A.A.C.R18-2-602]

B. Air Pollution Control Measures

The Permittee shall employ the following reasonable precautions, or any other method approved by the Director, to prevent excessive amounts of particulate matter from becoming airborne:

1. Keep dust and other types of air contaminants to a minimum in an open area where construction operations, repair operations, demolition activities, clearing operations, leveling operations, or any earth moving or excavating activities are taking place, by good modern practices such as using an approved dust suppressant or adhesive soil stabilizer, paving covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means; [A.A.C.R18-2-604.A]
2. Keep dust to a minimum from driveway, parking areas, and vacant lots where motor vehicular activity occurs by using an approved dust suppressant, or adhesive soil stabilizer, wetting or by paving, or by barring access to the property, or by other acceptable means; [A.A.C.R18-2-604.B]
3. Keep dust and other particulates to a minimum by employing dust suppressants, temporary paving, detouring, wetting down or by other reasonable means when a roadway is repaired, constructed, or reconstructed; [A.A.C.R18-2-605.A]
4. Take reasonable precautions, such as wetting, applying dust suppressants, or covering the load when transporting material likely to give rise to airborne dust; [A.A.C.R18-2-605.B]
5. Take reasonable precautions, such as use of spray bars, wetting agents, dust suppressants, covering the load, and hoods when crushing, handling, or conveying material likely to give rise to airborne dust; [A.A.C.R18-2-606]
6. Take reasonable precautions such as chemical stabilization, wetting, or covering when organic or inorganic dust producing material is being stacked, piled, or otherwise stored; [A.A.C.R18-2-607.A]
7. Take reasonable precautions such as use of dust suppressants before the cleaning of site, roadway, or alley. Earth or other material shall be removed from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosions by water or by other means. [A.A.C.R18-2-804.B]

C. Monitoring, Recordkeeping and Reporting Requirements

1. Open Areas, Roadways & Streets, Storage Piles and Material Handling
  - a. Permittee shall maintain appropriate records to demonstrate compliance with the reasonable precautions outlined in Section V.B.1 through V.B.7 above. [A.A.C.R18-2-306.A.3.c]

b. Quarterly Monitoring Requirements

- i. A certified Method 9 observer shall conduct a quarterly survey of visible emissions from the non-point sources. The Permittee shall keep a record of the name of the observer, the date on which the observation/survey was conducted, and the results of the observation/survey.
- ii. If the observer sees a plume from a non-point source that on an instantaneous basis appears to exceed 40%, then the observer shall, if practicable, take a six-minute Method 9 observation of the plume. If the six-minute opacity of the plume is less than 40%, the observer shall make a record of the following:
  - (a) Location, date, and time of the observation; and
  - (b) The results of the Method 9 observation.
- iii. If the six-minute opacity of the plume exceeds 40%, then the Permittee shall do the following:
  - (a) Adjust or repair the controls or equipment to reduce opacity to below 40%; and
  - (b) Report it as an excess emission under Section XII.A of Attachment "A". [A.A.C.R18-2-306.A.3.c]

2. Open Burning

The monitoring requirements for Section V.A.2 of this Attachment may be complied with by maintaining copies of all open burning permits on file. [A.A.C.R18-2-306.A.3.c]

D. Permit Shield [A.A.C.R18-2-325]

Compliance with this Condition V shall be deemed compliance with the following requirements as of the date of issuance of this permit: A.A.C. R18-2-602, -604.A, -604.B, -605.A, -605B, -606, -607.A, -607.B, -612, and A.A.C. R18-2-804.B.

**VI. MOBILE SOURCES**

**A. Emission Limitations/Standards**

1. Roadway and Site Cleaning Machinery

The Permittee shall not cause, allow or permit to be emitted into the atmosphere from any Roadway and site cleaning machinery smoke or dust for any period of

time greater than ten consecutive seconds, the opacity of which exceeds 40 percent. Visible emissions when starting cold equipment shall be exempt from this requirement for the first ten minutes. [A.A.C.R18-2-804.A]

2. Off Road Machinery

The Permittee shall not cause, allow or permit to be emitted into the atmosphere from any off-road machinery, smoke for any period of time greater than 10 consecutive seconds, the opacity of which exceeds 40 percent. Visible emissions when starting cold equipment shall be exempt from this requirement from this requirement for the first 10 minutes. [A.A.C.R18-2-802.A]

**B. Permit Shield** [A.A.C. R18-2-325]

Compliance with this Condition VI shall be deemed compliance with the following requirements as of the date of issuance of this permit: A.A.C. R18-2-802.A and A.A.C. R18-2-804.A.

**VII. OTHER PERIODIC ACTIVITIES**

**A. Abrasive Blasting**

1. Opacity of Visible Emissions

a. The Permittee shall not cause, allow, or permit visible emissions from sandblasting or other abrasive blasting operations in excess of 20 percent opacity as measured by EPA Reference Method 9. [A.A.C.R18-2-702.B]

b. The Permittee shall not cause or allow sandblasting or other abrasive blasting without minimizing dust emissions to the atmosphere through the use of good modern practices. Good modern practices include:

i. Wet blasting;

ii. Effective enclosure with necessary dust collecting equipment; or

iii. Any other method as approved by the Director.

[A.A.C.R18-2-726]

2. Monitoring, Recordkeeping, and Reporting Requirements [A.A.C.R18-2-306.A.3.c]

Each time an abrasive blasting project is conducted in an area open to the atmosphere, the Permittee shall log in ink or in an electronic format, a record of the following:

a. The date the project was conducted;

- b. The duration of the project; and
  - c. Type of control measures employed.
3. Permit Shield [A.A.C.R18-2-325]

Compliance with this Condition VII.A shall be deemed compliance with the following requirements as of the date of issuance of this permit: A.A.C. R18-2-702.B and A.A.C. R18-2-726.

**B. Use of Paints**

1. Opacity of Visible Emissions

Any visible plume or effluent from spray painting operations shall not have opacity greater than 20 percent, measured in accordance by EPA Reference Method 9. [A.A.C.R18-2-702.B]

2. Volatile Organic Compounds

a. Emission Limitations/Standards

While performing spray painting operations, the Permittee shall comply with the following requirements:

- i. The Permittee shall not conduct any spray painting operation without minimizing organic solvent emissions. Such operations other than architectural coating and spot painting shall be conducted in an enclosed area equipped with controls containing no less than 96 percent of the overspray. [A.A.C.R18-2-727.A]
- ii. The Permittee shall not either:
  - (a) Employ, apply, evaporate or dry any architectural coating containing photochemically reactive solvents for industrial or commercial purposes; or
  - (b) Thin or dilute any architectural coating with a photochemically reactive solvent. [A.A.C.R18-2-727.B]
- iii. For the purposes of parts (2) and (5) of this condition, a photochemically reactive solvent shall be any solvent with an aggregate of more than 20 percent of its total volume composed of the chemical compounds classified in paragraphs (a) through (c) of this subsection, or which exceeds any of the following percentages composition limitations, referred to the total volume of solvent:

- (a) A combination of the following types of compounds having an olefinic or cyclo-olefinic type of unsaturated hydrocarbons, alcohols, aldehydes, esters, ethers, or ketones: five percent
- (b) A combination of aromatic compounds with eight or more carbon atoms to the molecule except ethylbenzene: eight percent
- (c) A combination of ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene: 20 percent

[A.A.C.R18-2-727.C]

- iv. Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of the groups or organic compounds described in subsection 3(a) through 3(c) of this condition, it shall be considered to be a member of the group having the least allowable percent of the total volume of solvents.

[A.A.C.R18-2-727.D]

- v. The Permittee shall not dispose of by evaporation more than 1.5 gallons of photochemically reactive solvent in any one day.

[Arizona SIP R9-3-525-C]

b. Monitoring, Recordkeeping, and Reporting Requirements

[A.A.C.R18-2-306.A.3.c]

- i. Each time a spray painting project is conducted by a contractor, the Permittee shall log in ink or in an electronic format, a record of the following:
  - (a) The date the project was conducted;
  - (b) The duration of the project;
  - (c) Type of control measures employed; and
  - (d) Material Safety Data Sheets for all paints and solvents used in the project.
- ii. Architectural coating and spot painting projects shall be exempt from the recordkeeping requirements of part (i) above.

c. Permit Shield

[A.A.C. R18-2-325]

Compliance with this Condition VII.B shall be deemed compliance with the following requirements as of the date of issuance of this permit: A.A.C. R18-2-726, A.A.C. R18-2-727, and Arizona SIP R9-3-527.C.

**C. Demolition/Renovation**

1. Emission Limitations/Standards

The Permittee shall comply with the applicable requirements of 40 CFR 61, Subpart M (National Emissions Standards for Hazardous Air Pollutants-Asbestos). [A.A.C.R18-2-1101.A.8]

2. Monitoring, Recordkeeping, and Reporting Requirements

Permittee shall keep all records in a file. The required records include the “NESHAP Notification for Renovation and Demolition Activities” form and all supporting documents. [A.A.C.R18-2-306.A.3.c]

3. Permit Shield

[A.A.C. R18-2-325]

Compliance with this condition VII.C shall be deemed compliance with A.A.C. R18-2-1101.A.8 as of the date of issuance of this permit.

**D. Nonvehicle Air Conditioner Maintenance and/or Services**

1. Emission Limitation/Standards

The Permittee shall comply with the applicable requirements of 40 CFR 82-Subpart F (Protection of Stratospheric ozone-Recycling and Emissions Reduction). [40 CFR 82, Subpart F]

2. Monitoring, Recordkeeping, and Reporting Requirements

The Permittee shall keep all records required by the applicable requirements of 40 CFR 82-Subpart F in a file on site. [A.A.C.R18-2-306.A.3.c]

3. Permit Shield

[A.A.C. R18-2-325]

Compliance with this condition VII.D shall be deemed compliance with 40 CFR82, Subpart F.



**ATTACHMENT "C" EQUIPMENT LIST**  
**Air Quality Control Permit No. 31433**  
**for**  
**Yuma Cogeneration Associates**

<b>ID / Serial No.</b>	<b>Name</b>	<b>Make</b>	<b>Model</b>	<b>Capacity</b>	<b>Year of manufacture</b>	<b>NSPS applicability</b>
4101/296417	GE Frame 6 Turbine	General Electric	MS-6001	36.7 MW	1994	Yes
5101/932400	HRSG	Nooter/Erikson	N/A	N/A	1994	Yes
3101/155035	Steam Turbine Generator	General Electric	N/A	18.3 MW	1994	Yes
5125	Duct Burner	Coen Natural Gas	N/A	45 MMBtu/hr	1998	Yes
5175/L-92034	Auxiliary Boiler	Cleaver Brooks	700-500	20 MMBtu/hr	1993	Yes
2101	Cooling Tower	Gea Thermal-Dynamic	TD-36362-2421CF	141.3 MMBtu/hr	1993	No
4105/93-1565A	Fuel Oil Storage Tank	Schuff Steel Co.	N/A	530,000 gallons	1993	No
5152/4941	NO <sub>x</sub> Monitor	Anarad	AR-880	N/A	1993	No
5153/0414	Flow Monitor	EMRC	2271	N/A	N/A	No
5151/4942	O <sub>2</sub> Monitor	Anarad	AR-23	N/A	1993	No